

BEYOND
INDUSTRY
INTO LIVES



PRODUCT CATALOGUE



STAINLESS STEEL FLANGES

STAINLESS STEEL FLANGES:

Viraj is the world leader in stainless steel forged flanges. We serve customers across 90 countries and six continents. Viraj flanges are reputed and well known across the PVFF Industry for their reliability and quality.

The flanges division encompasses an integrated forge shop which manufactures all types of pipe fittings i.e. flanges, butt welding fittings (stubends) in various specifications (ASME / ANSI, EN, DIN, AFNOR, AWWA, GOST, BS, JIS, AS, MSS, SA,UNI etc) as well as forged bars.

Flanges are produced in size ranges from 1/2" to 40"

Viraj has an established and stringent quality system with 90 approvals / certificates till date in accordance with various specific requirements and applications. These approvals and certifications enable our customers to supply Viraj flanges to major end users across a variety of industries.

Our integrated operations include facilities for cutting, forging, ring rolling and machining with CNC lathes, CNC drilling (machining centre), high capacity forging press and mobile manipulator for making big diameter forged round bars. We also have an in-house heat treatment shop and well equipped laboratory facilities for mechanical and metallurgical testing, PMI testing with X-ray and emission spectrometers as well as radiation contamination test facilities.

INDUSTRIES WE SERVE

- Pipeline engineering
- Oil & gas – upstream & downstream
- Mechanical & plant engineering
- Marine
- Waste water
- Chemical & petrochemical
- Power industries (nuclear, natural gas, wind, solar)
- Aerospace
- Food processing



BLIND FLANGE



WELD NECK FLANGE



SLIP-ON FLANGE



SOCKET WELD FLANGE



THREADED FLANGE



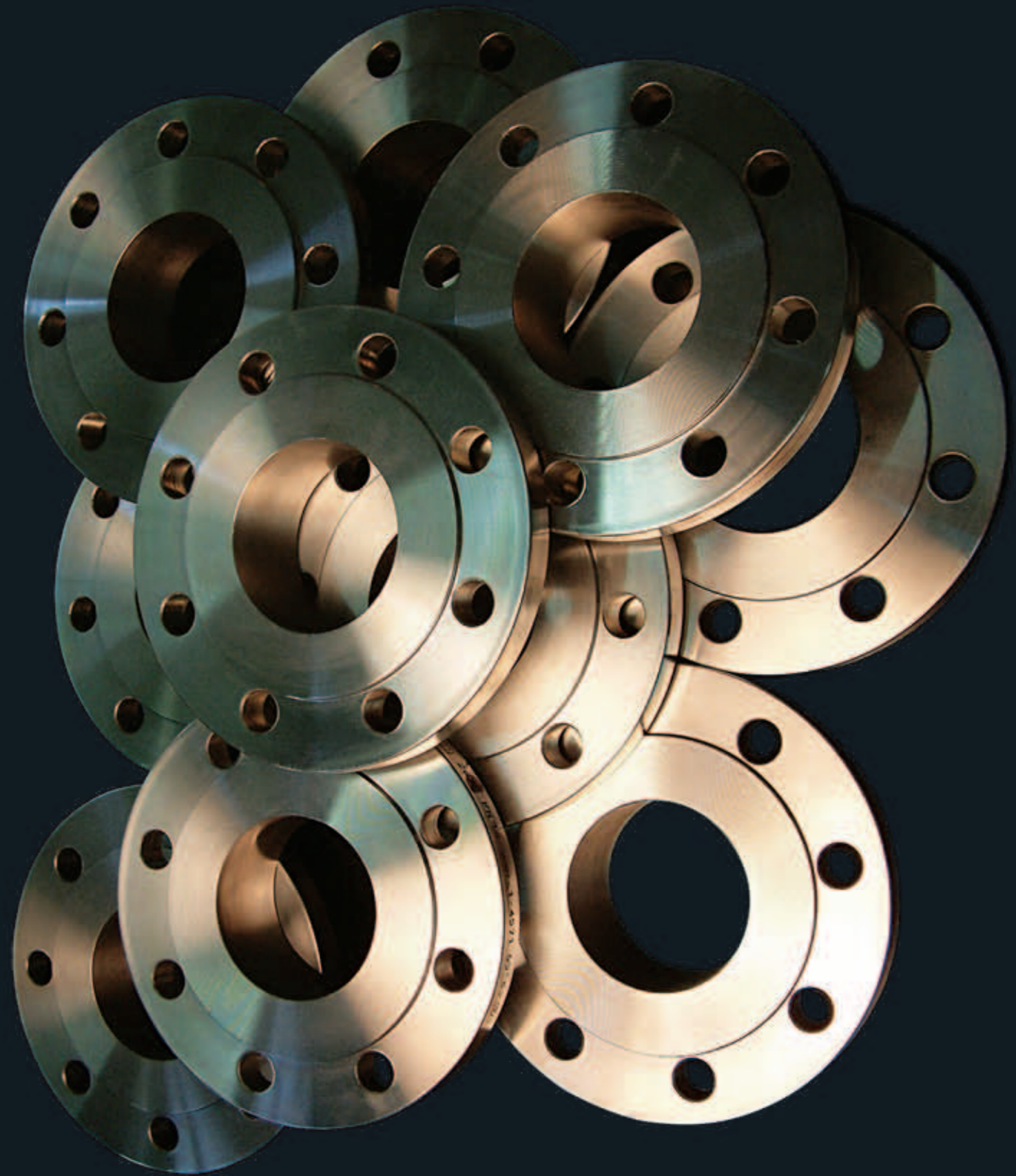
LAP JOINT FLANGE



ORIFICE FLANGE



STUBEND



DIMENSIONAL SPECIFICATIONS WITH SIZE RANGE

Sepecification	Item Description	Size Range	Pressure Calss
ASME - B16.5	Slip on flange, Welding neck flange, Blind flange, Threaded flange, Lap joint flange, RTJ flange	½" to 24" ½" to 24"	150, 300, 400, 600, 900, 1500 2500
ASME - B 16.47	Weldingneck flange, Blind flange	26" to 40" (AMSS) 26" to 36" (BAP)	150, 300, 400, 600, 900 (30") 75, 150, 300, 400, 600, 900 (32")
ASME - B 16.36	Welding neck flange Slip on flange, Threaded flange	1" to 24"	300, 400, 600, 900, 1500, 2500 (12")
DIN FLANGE	DIN 2512, DIN 2513, DIN 2514, DIN 2527, DIN 2566, DIN 2573, DIN 2576, DIN 2627, DIN 2628, DIN 2629, DIN 2631, DIN 2632, DIN 2633, DIN 2434, DIN 2635, DIN 2637, DIN 2628, DIN 2641, DIN 2642, DIN 2655, DIN 2656, DIN 2673	10 to 1000	PN6 to PN320
Pr-EN 1092 - 1	Plate flange (01) Loose plate flange (02, 04)/Blind flange (05) Welding neck flange (11)/Hubbed slip on flange (12) Hubbed threaded flange (13)/Integral flange (21), Weld-on collar (32) Lapped pipe end (33) Weldneck collar (34)	10 to 1000	ISO-PN2.5 to PN100
EN 1759 - 1	Plate flange (01)/blind flange (05) Welding neck flange (11)/Hubbed slip on flange (12) Hubbed threaded flange (13)/ Hubbed socket weld (14) Loose Hubbed flange (15) Integral flange (21)	½" to 24" (1.5 to 600)	150, 300, 400, 600, 900, 1500, 2500 (12")
AFNOR NEF 29-203	Plate flange (01)/Loose plate flange (02,04)/Blind flange (05) Welding neck flange (11)/ Hubbed slip on flange (12) Screwed flange (13) Hubbed socket Welding (14) Loose Hubbed (15)/Integral flange(21)	10 to 600	ISO-PN2.5 to PN420
JIS B2220/B2291	Slipon plate flange (SOP), Slipon Hub (SOH), Socket Welding flange (SW), Welding neck flange (WN), Lapjoint (LJ), Threaded flange (TR)/Integral flange (IT) Blank flange (BL)	10 to 600	5K, 10K, 15K, 20K, 30K
BS4504 SECTION 3.1	Weldingneck (111)/slipon plate (101)/screwed boss (113)/slipon boss (112)/blind plate flange (105)	0.375" to 36"	PN2.5 to PN40
BS4504 PART 1	Welding neck (2), Plate slipon (3), Screwed boss (4), Slipon boss (5), Blind plate flange (8)	0.375" to 36"	PN2.5 to PN 400
BS 1560 SECTION 3.1	Welding neck (111), Socket Weld (114), Screwed Boss (113), Slip on Boss (112), Blind flange (105), Lapped flange (115)	0.5" to 24"	150 LBS to 2500 LBS

Sepecification	Item Description	Size Range	Pressure Calss
BS 10 : 1962	Welding neck, Plate Slipon, Screwed Boss, Slipon Boss, Plate Blind flange	0.5" to 36"	TABLE D/E/F/H
SABS/SANS 1123	Integral (1), Welding neck (2), Plate for welding (3), Screwed Boss (4), Slip-on Boss (5) Plate Blank (8)	10 to 1000	250, 600, 1000, 1600, 2500, 4000 kPa
AWWA C228	Ring type slipon flanges, blind flanges	2" to 40"	SA (50Psi), SB (86Psi), SD (150/ 75Psi), SE (275Psi), SF 300Psi)
Italian standard UNI FLANGES	Plain flanges (2276, 2277, 2278, 6083, 6084) Welding neck (2280, 2281, 2282, 2283, 2284, 2285, 2286) Lapped flanges (6088, 6089, 6090, 2999, 2300) Blind flanges (6091, 6092, 6093, 6094, 6095, 6096, 6097) threaded flanges (2253, 2254)	15 to 200	PN 6 to PN 40
Norwegian Standard (NS)	Blind flanges, Plain welding flanges	15 to 800	PN 6 to PN 40
Flanges to VSM (Swiss) Standards	Flat flange for welding (18695, 18696, 18697) Weld neck (18716, 18718), blind flange (18703)	PN 6 to PN 16	PN 6 to PN 16
AS 4087 AS 2129	Blank, Plate, Screwed, Weld neck (W/N/WO/N), Integral flange Blank, Plate, Boss, Weld neck, Integral flange	50 to 1000 15 to 1000	PN16, PN21, PN35 TABLE D & E
GOST	Plate flange (GOST 12820-80), Weld neck flange GOST 12821-80, Blind flange (GOST 12836-67)	10 to 1000	0.6 MPa to 6.3 MPa
ASME/ANSI B 16.9 MASS SP-43	STUB END - TYPE A, B, C (Short pattern)	0.5 to 12"	Schedule - S10/S40/S80

GRADES

ASTM A182/182M ASME SA182/182M ASTM A403/403M	F 304, F304L, F304H, F310, F316, F316L, F316H, F347, F347H, F317, F317L, F321, F321H, F316Ti, F51, F60
JIS G3214	SUS 304, SUS304L, SUS304H, SUS316, SUS316L, SUS316H, SUS347, SUS347H, SUS317, SUS317L, SUS321, SUS321H
NF E29 - 204 (AFNOR)	BF Z7 CN 18-09 (F304), BF Z3 CN 19-09 (304L0), BF Z7 CND 17.11.02 (F316), BF Z3 CND 17.11.02 (F316L), BF Z6 CNDT 17-12 (316 Ti), BF Z6 CN Nb 18-10 (F347), BF Z6 CNT 18-10 (F321)
DIN 10088.3 DIN 10022.5	WNR 1.4301, WNR 1.4306, WNR 1.4307, WNR 1.4541, WNR 1.4571, WNR 1.4401, WNR 1.4404, WNR 1.4438, WNR 1.4450, WNR 1.4462

OTHER PRODUCTS

Long welding neck, Plate flanges (Light weight pattern), Backup flanges (BEV & STD), Beveled ID flanges, Reducing flanges, Case-end

FLANGES BORE SCHEDULES:

S5S, S10, S10S, S20, S30, S40, S40S, S60, S80, S80S, S100, S120, S140, S160, STD, XS, XXS

FLANGE FACING TYPES:

Flat face, Raised face, Large Raised face, Ring joint, Tongue & Groove face (large & small), Male-Female face

FLANGE FACE FINISH:

Stock Finish Serration, Spiral or Phonographic Serrated, Concentric Serrated, Smooth Finish

MANUFACTURING FACILITIES:

- 1 Raw material cutting: band saw
 - 2 Forging: hammer/press/ring rolling
 - 3 Machining: CNC lathes/SPM lathes
 - 4 Drilling: VMC, radial drill/column drill machines
 - 5 Heat treatment: solution annealing (batch annealing furnaces)
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TESTING FACILITIES:

- 1 Mobile spectrometer for PMI test (emission & X-ray)
- 2 Ultrasonic testing machine
- 3 Radiation servo meter
 - Dynamic radiation detection system with weigh-bridge portal monitors
 - Gamma ray spectroscopy - identifies nuclides & quantifies contamination
 - Portable radiation detection servo meters
- 4 Tensile testing machine (screw driven & computerised)
- 5 Surface roughness tester
- 6 Impact testing machine (RT & sub zero)
- 7 Hardness testing machine
- 8 Microscope (image analyser with colour view camera, motorised stage & inclusion inspector)
- 9 IGC test facilities
- 10 Dye penetrate test

PACKING:

- 1 Protect raised face and bevel end with plastic protection caps
- 2 Using plywood boxes size 800 x 1200 mm (Euro pallet) for shipment



CERTIFICATE



Management system as per
ISO 9001 : 2008

In accordance with TÜV NORD CERT procedures, it is hereby certified that

VIRAJ PROFILES LIMITED (FORGING DIVISION)
Survey No. 140/1 & G-75, MIDC, Tarapur Industrial Area,
Boisar, Dist : Thane – 401 506, Maharashtra,
India



applies a management system in line with the above standard for the following scope

**Manufacture and Supply of Stainless Steel Forged Flanges,
Fittings and Forged / Rolled Bars**

Certificate Registration No. **04 100 011170-E3**
Audit Report No. **2.5-813/2001**

Valid until **21.01.2016**
Valid from **22.01.2013**
Initial certification **05.07.2001**

Certification Body
at TÜV NORD CERT GmbH

Issue **10.01.2013**
Place : **Mumbai**

This certification was conducted in accordance with the TÜV NORD CERT auditing and certification procedures and is subject to regular surveillance audits.

TÜV NORD CERT GmbH Langemarckstrasse 20 45141 Essen www.tuev-nord-cert.com



TGA-ZM-07-09-00



CERTIFICATE

Certification Body for Pressure Equipment
of TÜV NORD Systems GmbH & Co. KG

certifies, that the company

Viraj Profiles Limited (Forging Division)
Survey No. 140/1, Saravali & G-75, MIDC, Tarapur
Industrial Area, Boisar
Dist. Thane-401 506, Maharashtra, India

has been verified and recognized as material manufacturer according to

AD 2000-Merkblatt W0

Certificate-No.: 07 202 1423 WP 1022 11

The range of validity and details of the inspection can be taken from
our report no. 810 763 6037

The company fulfills the following essential requirements:
Facilities permitting appropriate manufacturing and inspection corresponding to the present
technical standards, quality assurance, which guarantees that manufacturing and inspection of products stated
in our scope of approval are carried out in accordance with technical regulations,
competent supervising and inspecting personnel.

This certificate is valid until

February 2014

Essen, 02.02.2011



TÜV NORD Systems GmbH & Co. KG – Engineering Division – Dipl.-Ing. Peter Hahn
Langemarckstr. 20 • 45141 Essen
Tel: +49 (0) 201 485 2720 • Fax: +49 (0) 201 485 2658 • E-mail: AHahn@tuev-nord.de



CERTIFICATE

Quality-assurance System
for Material Manufacturer
acc. to Pressure Equipment Directive 97/23/EC
and AD 2000-Merkblatt W0
Certificate no.: **07 202 1423 W2 1022 11**

Name and address
of manufacturer: **Viraj Profiles Limited (Forging Division)**
Survey No. 140/1, Saravali & G-75, MIDC, Tarapur
Industrial Area, Boisar, Dist. Thane-401506,
Maharashtra, India

This is to certify that the manufacturer has implemented and applies a QA System.
This QA System has been subjected to a specific assessment for material acc. to Directive
97/23/EC and acc. to AD 2000-Merkblatt W0, with regard to the materials mentioned within the
scope of approval.

Approved: **QA System acc. to Directive 97/23/EC Annex I, sec. 4.3
and AD 2000-Merkblatt W0**

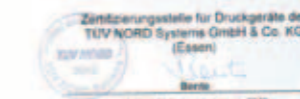
Audit report no.: **810 763 6037**

Scope of approval: **Manufacture and Supply of Stainless Steel Forged
Flanges, Fittings and Forged Rolled Bars**
Details of the scope are mentioned in the annex of the
certificate.

Production site: **Survey No. 140/1, Saravali & G-75, MIDC, Tarapur
Industrial Area, Boisar, Dist. Thane-401506, Maharashtra,
India**

The manufacturer disposes of the essential procedures and equipments as well as the required
qualified personnel to ensure quality of manufacturing and testing the materials and products
mentioned in the scope of approval.

Essen, 02.02.2011



Branch of validity:
valid until 02.2014

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